UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/519,605	03/06/2000	Peter C P Sun	WC99-001	8201

7590 08/09/2004	**EXAMINER**
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ART UNIT	PAPER NUMBER
2662	

SAN JOSE, CA 95113

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _21 May 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under _Ex parte Quayle_, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   The following is a response to the amendments filed on 05/21/2004.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3.   Claims 1-5,11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 1 recites "...in ordinary telephone service..." This limitation is confusing. It is

unclear what is meant by "ordinary telephone service". The term ordinary is a term of reference

and depending on a systems configuration and its usage different telephone services can be

considered as 'ordinary' depending on its perspective. Furthermore, the specification merely

describes only wall jacks as being ordinary (see page 2 lines 20-23) and does not describe any

specific 'ordinary telephone service'.

Claims 2-5, 11 and 12 are rejected because they depend on claim 1.

Claim 13 recites "...the hang up packet..." it is unclear which hang up packet is being

referred to since the claim previously states sending a hang up packet and a hang up packet tht is

related to the LTW. Furthermore, it is unclear what "response to an outside phone" is being

referred to. Also, the specification described outside calls not outside phones, thus it is unclear

what is meant by "an outside phone".

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 1-4,11 and 12, as best understood, are rejected under 35 U.S.C. 102(b) as being

anticipated by Baratz et al. (USPN 5,742,596), hereafter referred to as Baratz.

Referring to claim 1, Baratz discloses a voice and data network (a voice and data network

(see figure 1)), comprising:

a) a telephone and a computer connected to a voice and data module (VDM) (each host

computer has a voice and data module with a computer and phone connected thereto (Note, the

NIC and TCM cards of the host computer, as a whole, are being considered a voice and data

module since the NIC is used for data communication by the host computer and the TCM is used

by the telephone for voice communication and they also communicate between each other) (see

items 42 and 43 of figure 1)),

b) a plurality of said VDM devices connected to a plurality of telephone wires in a

building (a plurality of voice and data modules is connected through wires of a network (see

figure 1)),

c) said plurality of telephone wires connected together to provide a telephone network in

which only one phone can communicate on a given line at a time in ordinary telephone service

(the connected wires comprise a network and specifically there is a wire attaching the phone 42

to the TCM 174 wherein only one that phone 42 can communicate on at one time, also the wire

is a part of a standard telephone interface (see figure 1 and claim 5)),

d) a link to wide area network (LTW) connects said telephone network to a Public

Service Telephone Network (PSTN) and an Internet Service Provider (ISP) (a telephony server

connects the network to the PSTN and Internet (see figure 1)),

e) said LTW and said plurality of said VDM devices communicate together over said

telephone network using communication addresses assigned to said LTW and each VDM of said

plurality of VDM devices (the voice and data modules and the telephony server communicate

using their assigned addresses (see figure 1 and column 6 lines 16-38)).

Referring to claim 2, Baratz discloses the system discussed above. Furthermore, Baratz

discloses that the plurality of said VDM devices connect a plurality of telephones and a plurality

of personal computers (the voice and data modules connect a plurality of host computers and a

plurality of telephones (see figure 1)) to a plurality of data signals and a plurality of voice signals

on said telephone network operating concurrently (to a plurality of voice and data signals on the

network (see figure 1)).

Referring to claim 3, Baratz discloses the system discussed above. Furthermore, Baratz

discloses that said LTW and said plurality of VDM devices communicate over said network of

telephone wires by means of Ethernet Protocol technology (the voice and data modules

communicate with the telephony server using the Ethernet protocol (see column 4 lines 30-34)).

Referring to claim 4, Baratz discloses the system discussed above. Furthermore, Baratz

discloses that telephone service is provided to said building from said ISP and said PSTN (the

telephones are coupled such that they receive service from the PSTN and the Internet (see figure

1)).

Referring to claim 11, Baratz discloses the system discussed above. Furthermore, Baratz

discloses that at least one VDM device is connected to the telephone wires by a connector

originally used to provide a connection for a phone device (traditional telephones are connected

to the voice and data modules through a wire connected direct to the traditional telephone (see

traditional telephone 42 and the wire connecting it to the TCM 174, which is part of the voice

and data module)).

Referring to claim 12, Baratz discloses the system discussed above. Furthermore, Baratz

discloses that each of the plurality of VDM modules has a telephone and computer connected

thereto, each telephone and computer having a unique address with respect to all other

telephones and computers connected to VDM modules (the devices in the network communicate

using the Ethernet protocol and thus have unique addresses since Ethernet requires it (see figure

1))

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 5-10 and 14-16, as best understood, are rejected under 35 U.S.C. 103(a) as being

unpatentable over Baratz.

Referring to claim 5, Baratz discloses the system discussed above. Baratz does not disclose that more than one LTW is connected to said telephone network. However, It would have been obvious to one skilled in the art at the time of the invention to have more than one telephony server coupled to the network in Baratz because doing so has many benefits such as parallel processing wherein the processing power of more than one server can be used, thereby increasing the operating speed in the Baratz network and another benefit would be in redundancy, wherein if one server fails there will be another server that can support the system, thereby making Baratz more reliable.

Referring to claim 6, Baratz discloses a method for communicating between network elements in a voice and data network, comprising:

a) monitoring a communication network by a first voice and data module (VDM) for a call from a second VDM and a call from a link to a wide area network (LTW) connected to said communication network (each voice and data module checks for incoming signals that may come from either other voice and data modules on the local Ethernet or from outside the local Ethernet by-way-of the telephony server (see figure 1 and columns 5 and 6)),

b) monitoring a first phone and a first computer attached to said first VDM for an outgoing call to a destination containing a second phone and a second computer connected to said second VDM (the voice and data modules inherently check for signals from the telephone and/or computer that are attached to it for any outgoing calls that may be destined for another voice and data module on the network (see figure 1 and columns 5 and 6)), or an outside phone and an outside computer network through said LTW (the voice and data modules also inherently

check for any incoming calls it might receive from outside the local network by-way-of the

telephony server (see figure 1 and columns 5 and 6)),

c) connecting calls includes sending a request for connection packet with an address for

said LTW as the destination address (when an external call is being made packets from the

telephones are addresses to the telephony server (see column 6 lines 7-16)).

Baratz does not explicitly disclose the steps of connecting an outgoing call if the destination is

not busy else providing a busy signal to the source and disconnecting the outgoing call, or

connecting an incoming call only if the voice and data modules are not busy else sending back a

busy signal and disconnecting the incoming call or disconnecting the calls when they are

complete, all of which is specified in steps c-e. However, these steps are typically performed in

conventional and ordinary communications systems where calls are set-up, torn down and busy

signaling operations are performed, as in that of Baratz. Baratz discloses that calls are set-up

through the use of typical DTMF tones and thus also torn down (see column 4 lines 46-48,

column 5 lines 63-67 and column 9 lines 18-25). Furthermore, Baratz discloses that the system

uses busy signals and checks the status of nodes that are trying to be contacted (see column 6

lines 39-47 and column 7 lines 56-59)). Lastly, Baratz also points out that the telephones of the

system are ordinary sets that use DTMF signaling (see column 4 lines 46-48) and that the client

related features of the system are the same as those typically found in conventional PBX

equipment (see abstract). In light of the above disclosure and the fact that the call connecting,

disconnecting and busy signaling procedures, as recited in the claim, are those typically

performed, it would have been obvious to one skilled in the art at the time of the invention to

include these steps in the system of Baratz.

Referring to claim 7, Baratz the system discussed above. Furthermore, Baratz discloses that the connecting, detecting, connecting and disconnecting a call is done with packets that carry communication between said first and second VDM and between said first VDM and said LTW (the voice and data modules communicate with the telephony server to process calls using the Ethernet protocol (see column 4 lines 30-34)).

Referring to claim 8, Baratz the system discussed above. Furthermore, Baratz discloses that communication between computers is done directly in Ethernet protocol eliminating the need for any conversion (the host computers on the network communicate using Ethernet packets (see figure 1 and columns 5 and 6)).

Referring to claim 9, Baratz the system discussed above. Furthermore, Baratz discloses connecting a long distance phone call is done through said ISP without the use of a computer to assist in the call (telephones can be directly coupled to the telephony server in order to make call over the PSTN and therefore no host computer is needed (see figure 1 and column 5)).

Referring to claim 10, Baratz discloses the system discussed above. Furthermore, Baratz discloses detecting a request from said first computer for a connection to an Internet service provider (ISP) (the voice and data module receives a request from a host computer to connect to the Internet (see figure 1 and column 6)), sending request for the connection to said LTW (the voice and data module receives the request from the host computer (see figure 1 and column 6)) and completing connection to said ISP is completed when the LTW responds with a connection completed signal (inherently the voice and data module lets the host computer know that it is connected to the Internet so that communication can take place (see figure 1 and column 6)).

Referring to claim 14, Baratz discloses the system discussed above. Furthermore, Baratz

discloses sending a packet with a no line available indication from the LTW if an outside line

connected to the LTW is not available (the telephony server generates busy signals and sends the

signals in Ethernet frames to the telephone attempting to make a call to indicate the lint is

unavailable (see column 6 lines 38-47)).

Referring to claim 15, Baratz discloses the system discussed above. Furthermore, Baratz

discloses if said outgoing call is not an outside call, sending a request for connection packet to

the second VDM (when one telephony client needs to talk to another the telephony server rather

than communicating with an outside entity and having to go through the telephony server, the

second voice and data module on the other telephony client can also receive packets from the

such a packets can be considered a 'request for connection' packets (see figure 1 and column 6

lines 38-47)).

Referring to claim 16, Baratz discloses the system discussed above. Furthermore, Baratz

discloses the telephony server requesting an outside call to extension data for an incoming call

(inherently, any calls from the outside going to a particular phone must have a phone number

and/or extension associated with it so that the telephony server can properly route the call (see

figure 1)). Baratz does not disclose that if an extension is not received using a predetermined the

port address as the destination. However, it would have been obvious to one skilled in the art at

the time of the invention to implement this feature in Baratz because doing so will allow the call

to still take place rather than dropping the call because the extension is unknown, thus making

Baratz more reliable. Note, this becomes even more important for emergency calls made in the

Baratz system.

8.   Claim 13, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable

over Baratz in view of Angle et al. (USPN 6,366,771), hereafter referred to as Angle.

Referring to claim 13, Baratz discloses the system discussed above. Furthermore, Baratz

discloses that the telephony server processes calls using a queue (see figure 5) and setting up and

tearing down calls using the telephony server, wherein inherently signals indicating call set-up

and tear-down must be communicated between the telephony clients and the telephony server

(see figure 1). Baratz does not disclose using 'hang-up' packets for processing the calls of the

system. However, Angle discloses a system wherein hang-up packets are communicated within a

system to indicate the termination of a call (see column 12 lines 1-38)). It would have been

obvious to one skilled in the art at the time of the invention to implement this feature in the

Baratz system because doing so would tell the telephony server that the call is completed and so

the telephony server can free up resources related to that call and use those resources for other

calls.

Response to Arguments

9.   On page 10 lines 14-23 the Applicant argues that Baratz does not disclose the VDM

being connected to "telephone wires" and rather Baratz discloses the use of "LAN cabling"

instead. The Examiner respectfully disagrees. The cabling connecting the conventional

telephone 42 to the TCM 174 are standardized wiring for typical telephone (see figure 1 and

claim 5). Furthermore, Baratz points out that the LAN cabling used for network 37 is 4 pairs of

wire (i.e. 4 twisted pairs) (see column 5 lines 25-30). It is well known in the art that telephone

calls may be carried over twisted pair cabling. Therefore, the 'LAN cabling' in Baratz to which

the Applicant refers is indeed telephone cabling. Lastly, from a broad perspective *any* cabling

used to transport telephone calls can be considered 'telephone wires' no matter whether that

cabling is for example fiber optic or Cat3/5/5e/6 or coaxial or STP. If the cabling is used is some

way to transport a telephone call it can be considered 'telephone wires'. Therefore, any and all

the cabling in Baratz used to transport the telephone calls of the system can be considered

'telephone wires'.

On page 10 line 30 through page 11 line 17, the Applicant contends that the phone in

figure 1 of Baratz is not part of the network because Baratz considers the network to be item 37

in figure 1. The Examiner respectfully disagrees. Although Baratz may be calling only item 37 a

"network", this does not limit the interpretation of the claim language to only item 37 in figure 1

of Baratz. Namely, the figure and all nodes and connections displayed in the figure can, as a

whole, be considered a network and the telephone is clearly a node of the network since it

communicates with other telephony clients and phones.   Thus, it is the Examiner's

interpretation that the entire figure 1 is considered a single "network" and since it is used for

transporting telephone calls, it can also be considered a "telephone network".

On page 11 lines 23 and 24 the Applicant argues that the NIC in Baratz "…is never

described as having a connector originally used to provide a phone connection." However, this

is not a limitation of the claim.

On page 12 lines 6-27 the Applicant argues that the telephone and corresponding host

computer have the same address, namely the address of the NIC in the host computer and

therefore does not meet the claimed limitation of claim 12 that recites each telephone and

computer has a unique address. The Examiner respectfully disagrees. The term "address" is a

broad term and in this case each telephone and host computer *must* have unique addresses.

Namely, although the Telephony server used the MAC/Physical address of the host PC in order

to determine where to send the packets, the host computer must also use some kind of addressing

scheme to determine where to forward the packet. Specifically, the host computer must

determine which received packets are for the connected telephone and which are data packets

that are to be used by the host computer. After that determination the host computer must

determine which port to send out the telephone call packet corresponding to the telephone.

Therefore, the MAC address of the host computer is a unique address of the computer and that

same MAC address *in* combination with the port number corresponding to the telephone, as a

whole can be considered a single address and thus each telephone and computer has an

associated unique address.

On page 13 lines 26-31 the Applicant argues that there is no motivation found in the

reference for parallel processing and redundancy. The Examiner respectfully disagrees. As

pointed out by the Applicant on page 13 lines 15 and 16, a source of obviousness may be found

in knowledge generally available to one of ordinary skill in the art. In this case, parallel

processing to increase processing power and redundancy to increase reliability *are* techniques

and motivations that are generally available to one skilled in the art.

On page 14 lines 2-24 the Applicant argues that the reference does not disclose sending a

"request for connection packet". The Examiner respectfully disagrees. The telephony serve

receives packets to initialize and set-up calls when a user of the telephone wants to make a call.

These packets can therefore be considered a "request for connection packet", even though Baratz does not use these exact terms.

On page 15 lines 7-12 the Applicant argues that Baratz does not tech of computer calls in addition to phone calls. The Examiner respectfully disagrees. The host computers on the network are communicating over network 37 using the Ethernet protocol, which has session connections build into it. Furthermore, it is inherent that computer communications will at some point disconnect. Lastly, as shown in figure 6, the host computer also performs call dialing and set-up.

On page 15 lines 22-24 the Applicant argues that Baratz indicates that calls are exclusive to the TCM and not from VDM to VDM. The Examiner respectfully disagrees. As pointed out above the TCM and the NIC are together considered as corresponding to the claimed "VDM", thus even though the TCM may be the only part involved, it is still part of the "VDM".

On page 16 lines 5-22 the Applicant argues that there is no motivation from the reference for implementing the recited limitation in Baratz. The Examiner respectfully disagrees. As noted above, a source of obviousness may be found *in knowledge generally available to one of ordinary skill in the art*. In this case, since calls in Baratz may be emergency calls it I important to make sure the system is reliable and allowing a call to take place rather than dropping the call would make Baratz more reliable. This motivation is generally available to one skilled in the art.

Conclusion

10.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing
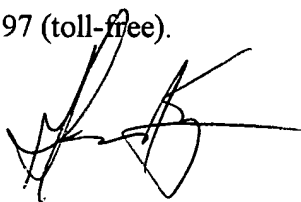
date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David Odland whose telephone number is 703-305-3231. The

examiner can normally be reached on Monday - Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

deo

August 4, 2004

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